

Serial # 10/772,328

Docket #: 2243-001

In the CLAIMS

Please replace the claims currently on file with the following claims:

1. (Currently amended) Apparatus for treating a gas stream containing liquid and being adapted to a vessel having cylindrical side walls, a bottom end, and a tangential gas inlet adjacent a top end, the apparatus comprising:

a base plate positioned below the tangential gas inlet;

at least one cylindrical shell arranged on the base plate and adjacent the wall portion for forming at least one annular cavity extending upwardly from the base plate and having an open end for receiving liquid therein;

an opening in the base plate at each annular cavity for draining liquid from the at least one annular cavity;

an outlet for the gas stream positioned adjacent the base plate and within the annular shells; and

a plate above the gas outlet for directing the gas stream over the one or more annular cavities before a drier gas stream is removed through the gas outlet.

wherein an annular cavity is formed between the vessel side wall and one of the at least one cylindrical shell.

2. (Original) The apparatus of claim 1 wherein the base plate divides the vessel into an upper gas cyclonic separation portion above the base plate and a lower liquid storage portion for receiving liquid from the one or more openings in the base plate.

3. (Currently cancelled) The apparatus of claim 1 wherein an annular cavity is formed between the vessel side wall and one of the at least one cylindrical shell.

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4. (Currently amended) The apparatus of claim 31 wherein there are two or more cylindrical shells, one within another, and being spaced successively and radially inward from an outermost cylindrical shell to an innermost cylindrical shell and forming annular cavities therebetween.

5. (Original) The apparatus of claim 4 wherein each radially inward and successive shell has a lesser height.

6. (Original) The apparatus of claim 1 further comprising an annular blanket adjacent the side walls and extending for at least a portion of the side walls between the tangential gas inlet and the open end of at least one cylindrical shell.

7. (Original) The apparatus of claim 1 further comprising a conduit extending from the gas outlet for directing the drier gas stream out of the vessel.

8. (Original) The apparatus of claim 7 wherein the conduit extends along an axis of the vessel and directs drier gas stream out of the top end of the vessel.

9. (Original) The apparatus of claim 8 wherein:
the conduit has a top end suspended from the top end of the vessel;
and
the base plate is suspended from a bottom end of the conduit.

10. (Original) The apparatus of claim 9 further comprising:
an insert for the vessel, the insert comprising the conduit, base plate
and cylindrical shells arranged thereon.

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11. (Original) The apparatus of claim 10 wherein the insert further comprises an annular blanket adapted for residing adjacent the side walls and extending for at least a portion of the side walls between the tangential gas inlet and the open end of at one least cylindrical shell.

12. (Original) A treatment vessel having cylindrical side walls, a bottom end, and a tangential gas inlet adjacent a top end and having the apparatus of claim 1 arranged therein.

13. (Currently Amended) Apparatus for treating a gas stream containing liquid comprising:

an insert adapted for installation into a cylindrical vessel and forming an annular cavity therebetween, the cylindrical vessel having a bottom end and having a tangential gas inlet adjacent a top end for spinning the gas stream, the insert having a bottom end and a top end;

a base plate at a bottom end of the insert;

one or more cylindrical annular shells arranged on the base plate, the first of the shells positioned adjacent the vessel for forming at least one annular cavity extending upwardly from the base plate for receiving liquid therein;

one or more openings in the base plate at each annular cavity for draining liquid from each annular cavity;

an outlet for the gas stream positioned adjacent the base plate and within the annular shells; and

a plate for directing the spinning gas stream over the annular shells before a drier gas stream is removed through the gas outlet.

14. (Currently amended) The apparatus of claim 14~~13~~ wherein the base plate divides the vessel into an upper gas cyclonic separation portion above the base plate and a lower liquid storage portion for receiving liquid from the one or more openings in the base plate.

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15. (Original) The apparatus of claim 14 wherein the insert further comprises a conduit extending from a top end of the insert to the bottom end of the insert.

16. (Original) The apparatus of claim 15 wherein the conduit extends along an axis of the vessel to the top end of the vessel for directing a drier gas stream out of the vessel.

17. (Original) The apparatus of claim 16 wherein:
the conduit is suspended from the top end of the vessel; and
the base plate is suspended from a bottom end of the conduit.

18. (Original) The apparatus of claim 14 wherein there are two or more cylindrical shells, one within another, and being spaced successively and radially inward from an outermost shell to an innermost shell and forming annular cavities therebetween.

19. (Original) The apparatus of claim 18 wherein each radially inward and successive shell has a lesser height.

20. (Original) The apparatus of claim 14 wherein the insert further comprises an annular blanket adapted for residing adjacent the side walls and extending for at least a portion of the side walls between the tangential gas inlet and the open end of at one least cylindrical shell.